Amendments to the Claims:

Please amend claims 1, 3, 4, 6, 15 to 18, 21 and 28 ss set forth hereinafter.

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) Container for receiving an aqueous solution, which is formed at least partially by an outer limit which forms an inner chamber for receiving said solution, and which comprises at least one area which acts as an electrode when an electric voltage is applied and a subsequent discharge occurs, wherein said at least one electrode is made of a conductive synthetic material which is, or is at least based on a plastic material which is doped with at least one conductive substance, and wherein the overall concentration of said dope in said plastic material is ~~40~~20 – 80 % w/w.

2. (Previously presented) Container according to claim 1, wherein said dope consists essentially of carbon fibers, graphite, soot and/or carbon nanotubes.

3. (Currently amended) Container according to claim 1, wherein the overall concentration of said dope in said plastic material is ~~40~~20 – 60 % w/w, preferably ~~50~~40 – 60 % w/w, ~~in particular~~ most preferred ~~55~~50 – 60 % w/w.

4. (Currently amended) Container according to claim 1, wherein the overall concentration of said dope in said plastic material is ~~50~~40 – 80 % w/w,

preferably ~~60~~50 – 80 % w/w, more~~st~~ preferred ~~70~~60– 80 % w/w, ~~in particular~~ most preferred ~~74~~70 – ~~76~~80 % w/w.

5. (Previously presented) Container according to claim 1, wherein said plastic material is polycarbonate, polyetheretherketone, polypropylene, polyamide, polyphenylensulfide or a mixture of these polymers, or at least based on one or several of these polymers, and/or wherein said plastic material is an intrinsically conductive synthetic material.

6. (Currently amended) Container according to claim 5, wherein said intrinsically conductive synthetic material is polyaniline, polyacetylene, poly-para-phenylene, poly-para-phenylensulfide, polypyrroles, polythiophene, polypropylene, or at least based on one or several of these polymers.

7. (Previously presented) Container according to claim 1, wherein said outer limit is made of synthetic material.

8. (Previously presented) Container according to claim 7, wherein said synthetic material is the same plastic material as the plastic material on which said at least one electrode is based.

9. (Previously presented) Container according to claim 1, wherein said at least one electrode is integrated into said outer limit.

10. (Previously presented) Container according to claim 1 comprising at least two electrodes being made of the same material.

11. (Previously presented) Container according to claim 1 comprising at least two electrodes, wherein said at least two electrodes are made of different materials.

12. (Previously presented) Container according to claim 1, wherein said at least one electrode is made of polyamide, in particular polyamide 66 or polyamide 6, doped with 25 - 45 % w/w, preferably 30 - 40 % w/w, in particular 33 - 37 % w/w, carbon fibers and 15 - 35 % w/w, preferably 20 - 30 % w/w, in particular 23 - 27 % w/w, graphite.

13. (Previously presented) Container according to claim 1, wherein said at least one electrode is made of polyamide, in particular polyamide 66 or polyamide 6, doped with 30 - 50 % w/w, preferably 35 - 45 % w/w, in particular 39 - 41 % w/w, carbon fibers and 25 - 45 % w/w, preferably 30 - 40 % w/w, in particular 34 - 36 % w/w, graphite.

14. (Previously presented) Container according to claim 1, wherein said at least one electrode is made of polycarbonate doped with 15 - 40 % w/w carbon fibers and 1 - 40 % w/w graphite.

15. (Currently amended) Container according to claim 1, wherein said at least one electrode is made of polyetheretherketone doped with ~~40~~30 - 50 % w/w carbon fibers.

16. (Currently amended) Container according to claim 1, wherein said at least one electrode is made of polyamide, preferably polyamide 66, doped with 20 - 40 % w/w carbon fibers.

17. (Currently amended) Container according to claim 1, wherein said at least one electrode is made of polypropylene doped with ~~40~~20 % w/w carbon fibers.

18. (Currently amended) Container according to claim 1, wherein said at least one electrode is made of polyphenylensulfide doped with ~~40~~30 - 50 % w/w carbon fibers.

19. (Previously presented) Container according to claim 1, wherein said outer limit comprises at least one opening for supplying said solution and at least one opening for draining off said solution.

20. (Previously presented) Container arrangement comprising at least two, preferably 6, 12, 24, 48, 96 or more, containers according to claim 1 being joined to build one unit.

21. (Currently amended) Method for producing containers or container arrangements according to claim 1 by two-component injection moulding comprising:

(a)(i) at first injection-moulding the outer limit so as to leave one recessed window, and

(b)(i) subsequently injection-moulding the conductive synthetic material made of doped plastic into said at least one window, or alternatively,

(a)(ii) at first injection-moulding said at least one electrode from said doped plastic material, and

(b)(ii) subsequently injection-moulding said outer limit around said at least one electrode.

22. (Previously presented) Method for treatment of cells, derivatives of cells, subcellular particles and/or vesicles by means of electric current comprising:

a) transferring said cells, derivatives of cells, subcellular particles and/or vesicles into an inner chamber of at least one container according to claim 1 comprising at least one electrode, and at least one further, and

b) applying voltage to said electrodes and generating a current flow in said inner chamber of said container.

23. (Previously presented) Method according to claim 22, wherein said electric current reaches a current density up to 120 A/cm^2, preferably 80 A/cm^2.

24. (Previously presented) Method according to claim 22, wherein biologically active molecules are solved in said solution, and transfer of said biologically active molecules into living cells is achieved via a voltage pulse having a field strength of 2 to 10 $kV{*}cm^{-1}$ and a duration of 10 to 200 μs.

25. (Previously presented) Method according to claim 24, wherein said transfer of said biologically active molecules into said cells is achieved by a current flow following said voltage pulse without interruption, having a current density of 2 to 14 $A{*}cm^{-2}$, preferably 5 $A{*}cm^{-2}$, and a duration of 1 to 100 ms, preferably 50 ms.

26. (Previously presented) Container according to claim 1, wherein said aqueous solution comprises cells, derivatives of cells, subcellular particles and/or vesicles.

27. (Previously presented) Container according to claim 7, wherein said synthetic material is a transparent plastic material.

28. (Currently amended) Method according to claim 22, wherein said cells, subcellular particles and/or vesicles are transferred into inner chambers of at least two containers.

29. (Previously presented) Method according to claim 24, wherein said biologically active molecules are nucleic acids.